

I CLAIM:

1. An electric multi-reservoir liquid soap dispenser, comprising:
at least two reservoirs, each including a containing space for
containing liquid soap, the containing space has an openable cover
5 on the top, a downward liquid outlet at the bottom, and couplers on
the back of the reservoirs for coupling to the coupling base;
a control circuit, which is composed of pluralities of integrated
circuits, chips, diodes, resistors, capacitors, light-emitting diodes
(LED), infrared ray sensors and a voltage source (battery chamber);
10 and
a coupling base, which is in form of a board being adopted to the
shape of the backboards, such that the at least two reservoirs can be
fastened thereon; coupling holes are provided on the backboards for
holding the liquid soap dispenser on the wall;
15 by way of the detection of the control circuit, whether or not each
reservoir respectively releases detergent can be correctly determined.
2. The electric multi-reservoir liquid soap dispenser according to Claim 1, wherein the liquid soap outlet at the bottom of the reservoir is connected to the liquid soap squeezer by a hose.
- 20 3. The electric multi-reservoir liquid soap dispenser according to Claim

1, wherein a single reservoir is composed of a liquid soap squeezer, an upper reservoir, a lower base and a cover; each liquid soap squeezer is provided with an electric light-emitting diode (LED) indicating light and a infrared ray sensor.

- 5 4. The electric multi-reservoir liquid soap dispenser according to Claim 1, wherein hangers of coupler are provided around the housing of the upper reservoir and lower base for coupling to the backboard.
- 10 5. The electric multi-reservoir liquid soap dispenser according to Claim 1, wherein the outer line of the backboard is a board made in adaptation to the back line of the at least two reservoirs; a connecting case is provided at the center of the backboard, which is provided with plurality of locking flaps at the vertical sides and an extruding back hanger on the back side.
- 15 6. The electric multi-reservoir liquid soap dispenser according to Claim 1, wherein an axle is provided on the top of the backboard for pivotally connected to the axle hole on the cover on the top of the reservoir to ease convertibly lifting of the cover.
- 20 7. The electric multi-reservoir liquid soap dispenser according to Claim 1, wherein the housing of the reservoir is provided with a window, which is covered by a transparent cap such that the electric LED

indicating light provided on the liquid soap squeezer can be visible through the transparent cap to allow a user to distinguish that the dispenser is in operation.